

Get to Know the Arroyo Colorado

GI-318, PDF version
(revised February 2006)

Residents, businesses, farmers, and ranchers in the Rio Grande Valley all depend on the Arroyo Colorado. It's a single body of water that serves us in many ways. It is:

- The Laguna Madre's largest source of freshwater.
- An important nursery and foraging area for shrimp, crabs, and fish.
- A recreational area for fishing and boating.
- A channel that carries rainfall runoff and floodwaters during storms.
- An important resource for agricultural irrigation drainage.
- An inland waterway to the Port of Harlingen.
- A major artery for the Valley's wastewater infrastructure.

The Arroyo Colorado is an ancient channel of the Rio Grande that flows west to east through the heart of the Rio Grande Valley. It begins near the city of Mission and empties into the Laguna Madre.

Pollution Takes Its Toll

Consider the following examples of pollution on the Arroyo Colorado:

- During the period from 1990 to 2004, 26 million fish died in 19 state-documented fish kills in the Arroyo Colorado.
- A portion of the Arroyo Colorado is currently on the state's list of impaired water bodies because the Arroyo cannot sustain the amount of dissolved oxygen needed to support many species of aquatic life.
- Portions of the waterway have also been included on the state's list for toxic sediment and excessive bacteria.

What's Good for the Arroyo Is Good for the Laguna

Pollution problems threaten the Arroyo Colorado, its use for fishing and boating, and its ability to provide freshwater into the Laguna Madre. The health of the Arroyo ties directly to the health of this bay.

The Laguna Madre is an economically and ecologically important resource to the Valley and to Texas. This bay supports major fish and bird populations, provides recreation, and brings millions of tourism dollars to the area.

Conditions That Contribute to Pollution

Some of the Arroyo's water quality problems are due to *nonpoint source water pollution*, which comes from multiple

locations, usually carried by rainfall runoff. For example, pollutants may wash off lawns, construction areas, farms, or highways during a heavy rain. These pollutants are then carried into creeks, rivers, and lakes.

The Arroyo Colorado has special challenges from nonpoint source pollution because of several unique characteristics:

- The Arroyo Colorado watershed includes 10 cities with populations of more than 10,000. In the past several years, the Valley has experienced a boom in population and growth. This adds additional stress to an area that is already economically challenged and without sufficient wastewater infrastructure.
- The Arroyo Colorado is physically modified to carry floodwaters to the Laguna Madre during storm events in the Valley. It also serves as the means to carry the wastewater discharges from 17 permitted treatment plants. The banks along the Arroyo are cleared of plants and trees and are routinely maintained. Plant life would help to filter out contaminants, to provide better water quality by lowering water temperature, and to prevent erosion. Hopefully, a balance can be found to help the Arroyo help itself.
- The Arroyo Colorado basin includes about 500,000 acres of flat coastal plain. Nearly 70 percent of this land is extensively cultivated. Water used for irrigation in the Arroyo Basin is diverted from the Rio Grande by about 20 irrigation districts and used primarily for row crops, sugar cane, and citrus. Fertilizer and pesticides used on these crops run off into the Arroyo and affect the water quality.
- As an inland waterway, the Arroyo Colorado is dredged to the Port of Harlingen to accommodate barge traffic. This dredging dramatically reduces aquatic life by altering habitat for wildlife and migrating birds along the Arroyo.

Get Involved in the Arroyo's Future

No simple solution will fix the problems facing the Arroyo Colorado today. Solutions will require a variety of efforts by many people. That's why since 1998, the Texas Commission on Environmental Quality (TCEQ) and the Texas State Soil and Water Conservation Board (TSSWCB) have actively engaged the community to address water quality issues in the Arroyo.

Building Consensus, Taking Action

Protecting water quality requires careful consideration of constantly changing conditions, so the TCEQ has helped

local stakeholders to create the Arroyo Colorado Watershed Steering Committee. With a cross section of environmental and economic leaders, the committee meets regularly to develop a Watershed Protection Plan designed to restore water quality in the Arroyo. The following work groups of the Steering Committee focus on specific portions of the plan:

- Agriculture
- Education and Outreach
- Habitat Restoration
- Wastewater Infrastructure
- Total Maximum Daily Load
- Land Use

Your Participation Is Important

If the future of the Arroyo Colorado is important to you, take the opportunity to get involved in its restoration and protection. Your participation is vital to ensure that all local

perspectives are considered in decision-making at the state level. You can also help raise awareness of water quality issues affecting the Arroyo Colorado.

Here are ways to get involved:

- Attend the Arroyo Colorado Watershed Steering Committee meetings, which are open to all interested parties—public or private. Simply call the phone number or visit the Web site listed below for meeting dates and times.
- Volunteer to participate in a work group.
- Do your part to prevent water pollution on the Arroyo Colorado.
 - Use fewer chemical pesticides and fertilizers.
 - Report illegal dumping to your county constable or sheriff.
 - Learn more about what you can do on the TCEQ's Web site at www.tceq.state.tx.us/implementation/water/tmdl/13-arroyo_group.html.
 - Call the staff of the TCEQ Arroyo Colorado project at 512/239-2796 (ARYO).